FIG.1A

Exons: 1f   1e1a1d 1b   1c 2   3   45678 9
Cosmids: J5 ——————————————————— AE ————— D2 WE

FIG.1B

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
Application No.: 09/509,482
Docket No.: RICE-014

FIG. 1C

Transcript 1:

Transcript 6: MEWRN KKRSD WLSMV LRTAG VEEAF GSEVS VRPHR RAPLG STYLP PAPSG MEAMA ASTSL PDPGD FDRNV PRI |DBD| 427aa (SEQ ID NO. 14)

Transcript 9: MEW RNKKR SDWLS MVLRT AGVEG MEAMA ASTSL PDPGD FDRNV PRI |DBD| 477aa

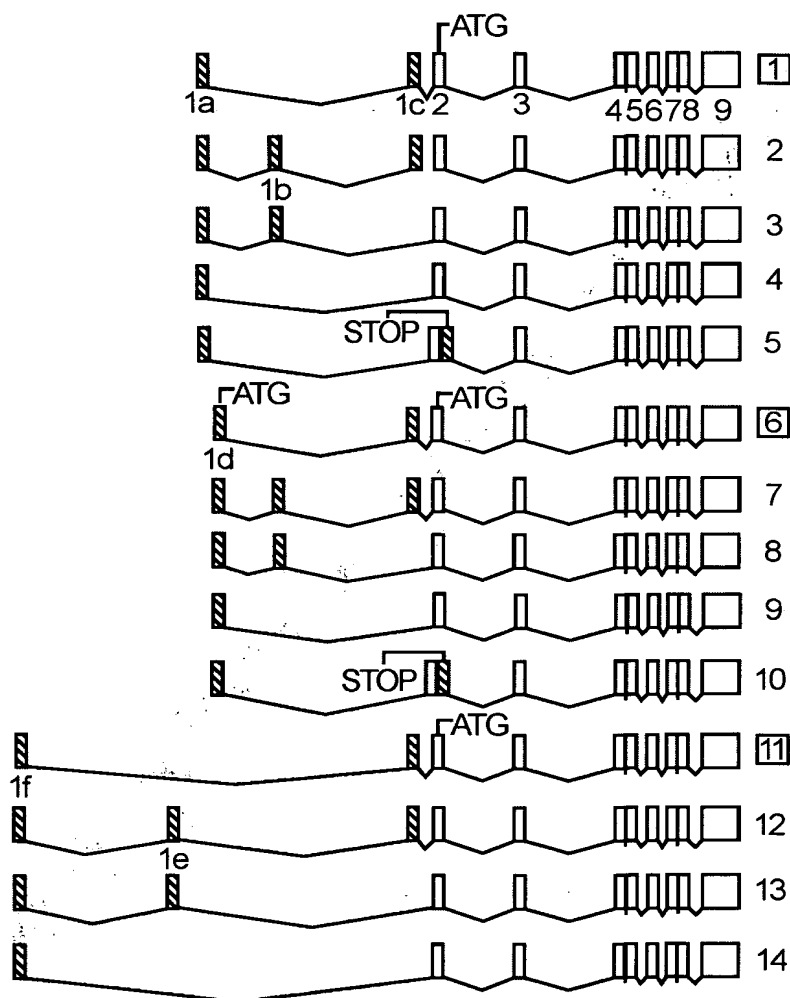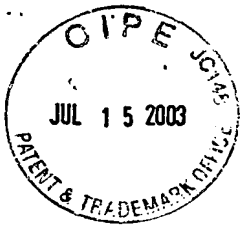MEAMA ASTSL PDPGD FDRNV PRI |DBD| 450aa (SEQ ID NO. 15)
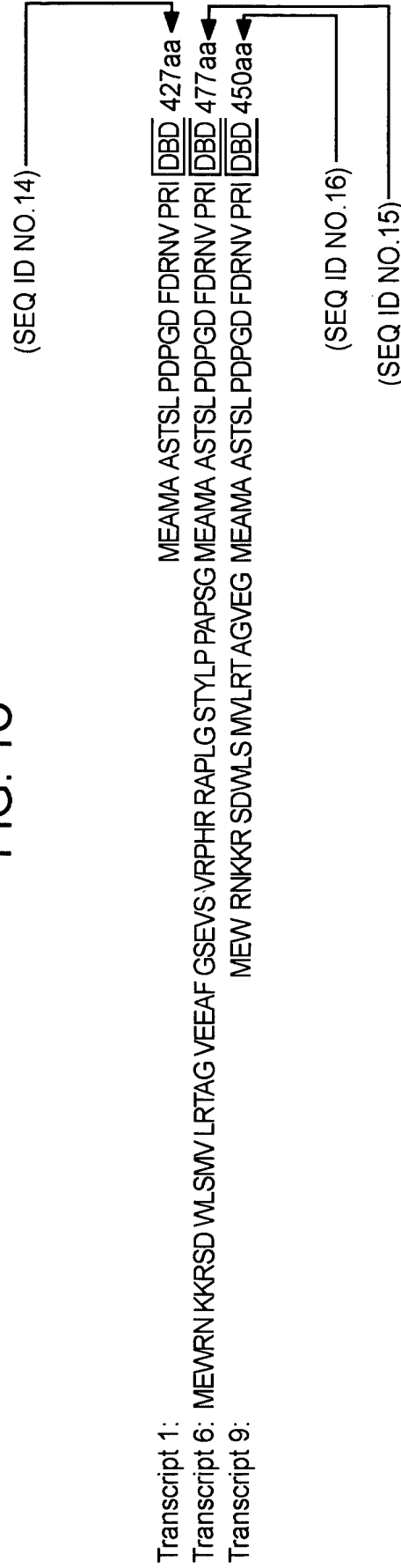
(SEQ ID NO. 16)

FIG. 4

A. 5'...atcccttaag GGCTCCTGAACCTAGCCCAGCTGGACGGAG
AAATGGACTCTAGCCTCCTCTGATAGCCTCATGCCAGGCCC
CGTGCACATTGCTTTGCTTGCCTCCCTCAATCCTCATAGCT
TCTCTTTGGGgtaagtacag...3' (SEQ ID NO: 13)

B. 5'...TGCGACCTTGGCGGTGAGCCTGGGGACAGGGGTGAGGC
CAGAGACGGACGGACGCAGGGGCCCGGCCCAAGGCGAGGG
AGAACAGCGGCACTAAGGCAGAAAGGAAGAGGGCGGTGTG
TTCACCCGCAGCCCAATCCATCACTCAGCAACTCCTAGAC
GCTGGTAGAAAGTTCCTCCGAGGAGCCTGCCATCCAGTCGT
GCGTGCAG...3' (SEQ ID NO: 5)

C. 5'...tgtttttttag AGGCAGCATGAAACAGTGGGATGTGCAGAG
AGAAGATCTGGGTCCAGTAGCTCTGACACTCCTCAGCTGT
AGAAACCTTGACAACTCTGCACATCAGTTGTACAATGGAA
CGGTATTTTTTTACTCTTCATGTCTGAAAAGGCTATGATAA
AGATCAAgtaagatatt...3' (SEQ ID NO: 6)

D. 5'...GTTTCCTTCTTCTGTCGGGGCGCCTTGGCATGGAGTGG
AGGAATAAGAAAAGGAGCGATTGGCTGTCGATGGTGCTCA
GAACTGCTGGAGTGGAGGgtgtgtaacc...3'   (SEQ ID NO: 1)
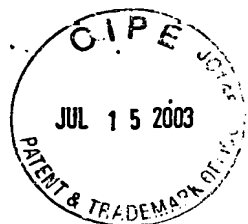
FIG. 5A

Transcript 6
(Sequence Range: 1 to 1463)

```
              10         20         30         40         50
           *    *    *    *    *    *    *    *    *    *
    GTTTCCTTCT TCTGTCGGGG CGCCTTGGCA TGGAGTGGAG GAATAAGAAA
    CAAAGGAAGA AGACAGCCCC GCGGAACCGT ACCTCACCTC CTTATTCTTT
                                     MetGluTrpArg AsnLysLys>


              60         70         80         90        100
           *    *    *    *    *    *    *    *    *    *
    AGGAGCGATT GGCTGTCGAT GGTGCTCAGA ACTGCTGGAG TGGAGGAAGC
    TCCTCGCTAA CCGACAGCTA CCACGAGTCT TGACGACCTC ACCTCCTTCG
    ArgSerAsp TrpLeuSerMet ValLeuArg ThrAlaGly ValGluGluAla>


             110        120        130        140        150
           *    *    *    *    *    *    *    *    *    *
    CTTTGGGTCT GAAGTGTCTG TGAGACCTCA CAGAAGAGCA CCCCTGGGCT
    GAAACCCAGA CTTCACAGAC ACTCTGGAGT GTCTTCTCGT GGGGACCCGA
     PheGlySer GluValSer ValArgProHis ArgArgAla ProLeuGly>


             160        170        180        190        200
           *    *    *    *    *    *    *    *    *    *
    CCACTTACCT GCCCCCTGCT CCTTCAGGGA TGGAGGCAAT GGCGGCCAGC
    GGTGAATGGA CGGGGGACGA GGAAGTCCCT ACCTCCGTTA CCGCCGGTCG
    SerThrTyrLeu ProProAla ProSerGly MetGluAlaMet AlaAlaSer>


             210        220        230        240        250
           *    *    *    *    *    *    *    *    *    *
    ACTTCCCTGC CTGACCCTGG AGACTTTGAC CGGAACGTGC CCCGGATCTG
    TGAAGGGACG GACTGGGACC TCTGAAACTG GCCTTGCACG GGGCCTAGAC
    ThrSerLeu ProAspProGly AspPheAsp ArgAsnVal ProArgIleCys>


             260        270        280        290        300
           *    *    *    *    *    *    *    *    *    *
    TGGGGTGTGT GGAGACCGAG CCACTGGCTT TCACTTCAAT GCTATGACCT
    ACCCCACACA CCTCTGGCTC GGTGACCGAA AGTGAAGTTA CGATACTGGA
     GlyValCys GlyAspArg AlaThrGlyPhe HisPheAsn AlaMetThr>


             310        320        330        340        350
           *    *    *    *    *    *    *    *    *    *
    GTGAAGGCTG CAAAGGCTTC TTCAGGCGAA GCATGAAGCG GAAGGCACTA
    CACTTCCGAC GTTTCCGAAG AAGTCCGCTT CGTACTTCGC CTTCCGTGAT
    CysGluGlyCys LysGlyPhe PheArgArg SerMetLysArg LysAlaLeu>


             360        370        380        390        400
           *    *    *    *    *    *    *    *    *    *
    TTCACCTGCC CCTTCAACGG GGACTGCCGC ATCACCAAGG ACAACCGACG
    AAGTGGACGG GGAAGTTGCC CCTGACGGCG TAGTGGTTCC TGTTGGCTGC
    PheThrCys ProPheAsnGly AspCysArg IleThrLys AspAsnArgArg>
```

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
Application No.: 09/509,482
Docket No.: RICE-014

FIG. 5B

```
           410        420        430        440        450
      *        *    *        *    *        *    *        *    *        *
CCACTGCCAG GCCTGCCGGC TCAAACGCTG TGTGGACATC GGCATGATGA
GGTGACGGTC CGGACGGCCG AGTTTGCGAC ACACCTGTAG CCGTACTACT
 HisCysGln AlaCysArg LeuLysArgCys ValAspIle GlyMetMet>


           460        470        480        490        500
      *        *    *        *    *        *    *        *    *        *
AGGAGTTCAT TCTGACAGAT GAGGAAGTGC AGAGGAAGCG GGAGATGATC
TCCTCAAGTA AGACTGTCTA CTCCTTCACG TCTCCTTCGC CCTCTACTAG
LysGluPheIle LeuThrAsp GluGluVal GlnArgLysArg GluMetIle>


           510        520        530        540        550
      *        *    *        *    *        *    *        *    *        *
CTGAAGCGGA AGGAGGAGGA GGCCTTGAAG GACAGTCTGC GGCCCAAGCT
GACTTCGCCT TCCTCCTCCT CCGGAACTTC CTGTCAGACG CCGGGTTCGA
LeuLysArg LysGluGluGlu AlaLeuLys AspSerLeu ArgProLysLeu>


           560        570        580        590        600
      *        *    *        *    *        *    *        *    *        *
GTCTGAGGAG CAGCAGCGCA TCATTGCCAT ACTGCTGGAC GCCCACCATA
CAGACTCCTC GTCGTCGCGT AGTAACGGTA TGACGACCTG CGGGTGGTAT
 SerGluGlu GlnGlnArg IleIleAlaIle LeuLeuAsp AlaHisHis>


           610        620        630        640        650
      *        *    *        *    *        *    *        *    *        *
AGACCTACGA CCCCACCTAC TCCGACTTCT GCCAGTTCCG GCCTCCAGTT
TCTGGATGCT GGGGTGGATG AGGCTGAAGA CGGTCAAGGC CGGAGGTCAA
LysThrTyrAsp ProThrTyr SerAspPhe CysGlnPheArg ProProVal>


           660        670        680        690        700
      *        *    *        *    *        *    *        *    *        *
CGTGTGAATG ATGGTGGAGG GAGCCATCCT TCCAGGCCCA ACTCCAGACA
GCACACTTAC TACCACCTCC CTCGGTAGGA AGGTCCGGGT TGAGGTCTGT
ArgValAsn AspGlyGlyGly SerHisPro SerArgPro AsnSerArgHis>


           710        720        730        740        750
      *        *    *        *    *        *    *        *    *        *
CACTCCCAGC TTCTCTGGGG ACTCCTCCTC CTCCTGCTCA GATCACTGTA
GTGAGGGTCG AAGAGACCCC TGAGGAGGAG GAGGACGAGT CTAGTGACAT
 ThrProSer PheSerGly AspSerSerSer SerCysSer AspHisCys>


           760        770        780        790        800
      *        *    *        *    *        *    *        *    *        *
TCACCTCTTC AGACATGATG GACTCGTCCA GCTTCTCCAA TCTGGATCTG
AGTGGAGAAG TCTGTACTAC CTGAGCAGGT CGAAGAGGTT AGACCTAGAC
IleThrSerSer AspMetMet AspSerSer SerPheSerAsn LeuAspLeu>


           810        820        830        840        850
      *        *    *        *    *        *    *        *    *        *
AGTGAAGAAG ATTCAGATGA CCCTTCTGTG ACCCTAGAGC TGTCCCAGCT
TCACTTCTTC TAAGTCTACT GGGAAGACAC TGGGATCTCG ACAGGGTCGA
SerGluGlu AspSerAspAsp ProSerVal ThrLeuGlu LeuSerGlnLeu>
```

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
Application No.: 09/509,482
Docket No.: RICE-014

FIG. 5C

```
            860         870         880         890         900
         *    *      *    *      *    *      *    *      *    *
         CTCCATGCTG CCCCACCTGG CTGACCTGGT CAGTTACAGC ATCCAAAAGG
         GAGGTACGAC GGGGTGGACC GACTGGACCA GTCAATGTCG TAGGTTTTCC
          SerMetLeu  ProHisLeu  AlaAspLeuVal SerTyrSer IleGlnLys>


            910         920         930         940         950
         *    *      *    *      *    *      *    *      *    *
         TCATTGGCTT TGCTAAGATG ATACCAGGAT TCAGAGACCT CACCTCTGAG
         AGTAACCGAA ACGATTCTAC TATGGTCCTA AGTCTCTGGA GTGGAGACTC
         ValIleGlyPhe AlaLysMet  IleProGly  PheArgAspLeu ThrSerGlu>


            960         970         980         990        1000
         *    *      *    *      *    *      *    *      *    *
         GACCAGATCG TACTGCTGAA GTCAAGTGCC ATTGAGGTCA TCATGTTGCG
         CTGGTCTAGC ATGACGACTT CAGTTCACGG TAACTCCAGT AGTACAACGC
         AspGlnIle ValLeuLeuLys SerSerAla IleGluVal IleMetLeuArg>


           1010        1020        1030        1040        1050
         *    *      *    *      *    *      *    *      *    *
         CTCCAATGAG TCCTTCACCA TGGACGACAT GTCCTGGACC TGTGGCAACC
         GAGGTTACTC AGGAAGTGGT ACCTGCTGTA CAGGACCTGG ACACCGTTGG
          SerAsnGlu  SerPheThr MetAspAspMet SerTrpThr CysGlyAsn>


           1060        1070        1080        1090        1100
         *    *      *    *      *    *      *    *      *    *
         AAGACTACAA GTACCGCGTC AGTGACGTGA CCAAAGCCGG ACACAGCCTG
         TTCTGATGTT CATGGCGCAG TCACTGCACT GGTTTCGGCC TGTGTCGGAC
         GlnAspTyrLys TyrArgVal SerAspVal ThrLysAlaGly HisSerLeu>


           1110        1120        1130        1140        1150
         *    *      *    *      *    *      *    *      *    *
         GAGCTGATTG AGCCCCTCAT CAAGTTCCAG GTGGGACTGA AGAAGCTGAA
         CTCGACTAAC TCGGGGAGTA GTTCAAGGTC CACCCTGACT TCTTCGACTT
         GluLeuIle GluProLeuIle LysPheGln ValGlyLeu LysLysLeuAsn>


           1160        1170        1180        1190        1200
         *    *      *    *      *    *      *    *      *    *
         CTTGCATGAG GAGGAGCATG TCCTGCTCAT GGCCATCTGC ATCGTCTCCC
         GAACGTACTC CTCCTCGTAC AGGACGAGTA CCGGTAGACG TAGCAGAGGG
          LeuHisGlu  GluGluHis ValLeuLeuMet AlaIleCys IleValSer>


           1210        1220        1230        1240        1250
         *    *      *    *      *    *      *    *      *    *
         CAGATCGTCC TGGGGTGCAG GACGCCGCGC TGATTGAGGC CATCCAGGAC
         GTCTAGCAGG ACCCCACGTC CTGCGGCGCG ACTAACTCCG GTAGGTCCTG
         ProAspArgPro GlyValGln AspAlaAla LeuIleGluAla IleGlnAsp>


           1260        1270        1280        1290        1300
         *    *      *    *      *    *      *    *      *    *
         CGCCTGTCCA ACACACTGCA GACGTACATC CGCTGCCGCC ACCCGCCCCC
         GCGGACAGGT TGTGTGACGT CTGCATGTAG GCGACGGCGG TGGGCGGGGG
         ArgLeuSer AsnThrLeuGln ThrTyrIle ArgCysArg HisProProPro>
```

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
Application No.: 09/509,482
Docket No.: RICE-014

FIG. 5D

```
        1310        1320        1330        1340        1350
     *      *     *      *     *      *     *      *     *      *
  GGGCAGCCAC CTGCTCTATG CCAAGATGAT CCAGAAGCTA GCCGACCTGC
  CCCGTCGGTG GACGAGATAC GGTTCTACTA GGTCTTCGAT CGGCTGGACG
   GlySerHis LeuLeuTyr AlaLysMetIle GlnLysLeu AlaAspLeu>


        1360        1370        1380        1390        1400
     *      *     *      *     *      *     *      *     *      *
  GCAGCCTCAA TGAGGAGCAC TCCAAGCAGT ACCGCTGCCT CTCCTTCCAG
  CGTCGGAGTT ACTCCTCGTG AGGTTCGTCA TGGCGACGGA GAGGAAGGTC
ArgSerLeuAsn GluGluHis SerLysGln TyrArgCysLeu SerPheGln>


        1410        1420        1430        1440        1450
     *      *     *      *     *      *     *      *     *      *
  CCTGAGTGCA GCATGAAGCT AACGCCCCTT GTGCTCGAAG TGTTTGGCAA
  GGACTCACGT CGTACTTCGA TTGCGGGGAA CACGAGCTTC ACAAACCGTT
  ProGluCys SerMetLysLeu ThrProLeu ValLeuGlu ValPheGlyAsn>


        1460
     *      *
TGAGATCTCC TGA (SEQ ID NO:2)
ACTCTAGAGG ACT (SEQ ID NO:17)
  GluIleSer ***>(SEQ ID NO:9)
```

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
Application No.: 09/509,482
Docket No.: RICE-014

FIG. 6A

Transcript 9
(Sequence range: 1 to 1382)

```
          10        20        30        40        50
    *     *     *     *     *     *     *     *     *     *
GTTTCCTTCT TCTGTCGGGG CGCCTTGGCA TGGAGTGGAG GAATAAGAAA
CAAAGGAAGA AGACAGCCCC GCGGAACCGT ACCTCACCTC CTTATTCTTT
                                 MetGluTrpArg AsnLysLys>


          60        70        80        90       100
    *     *     *     *     *     *     *     *     *     *
AGGAGCGATT GGCTGTCGAT GGTGCTCAGA ACTGCTGGAG TGGAGGGGAT
TCCTCGCTAA CCGACAGCTA CCACGAGTCT TGACGACCTC ACCTCCCCTA
ArgSerAsp TrpLeuSerMet ValLeuArg ThrAlaGly ValGluGlyMet>


         110       120       130       140       150
    *     *     *     *     *     *     *     *     *     *
GGAGGCAATG GCGGCCAGCA CTTCCCTGCC TGACCCTGGA GACTTTGACC
CCTCCGTTAC CGCCGGTCGT GAAGGGACGG ACTGGGACCT CTGAAACTGG
  GluAlaMet AlaAlaSer ThrSerLeuPro AspProGly AspPheAsp>


         160       170       180       190       200
    *     *     *     *     *     *     *     *     *     *
GGAACGTGCC CCGGATCTGT GGGGTGTGTG GAGACCGAGC CACTGGCTTT
CCTTGCACGG GGCCTAGACA CCCCACACAC CTCTGGCTCG GTGACCGAAA
ArgAsnValPro ArgIleCys GlyValCys GlyAspArgAla ThrGlyPhe>


         210       220       230       240       250
    *     *     *     *     *     *     *     *     *     *
CACTTCAATG CTATGACCTG TGAAGGCTGC AAAGGCTTCT TCAGGCGAAG
GTGAAGTTAC GATACTGGAC ACTTCCGACG TTTCCGAAGA AGTCCGCTTC
HisPheAsn AlaMetThrCys GluGlyCys LysGlyPhe PheArgArgSer>


         260       270       280       290       300
    *     *     *     *     *     *     *     *     *     *
CATGAAGCGG AAGGCACTAT TCACCTGCCC CTTCAACGGG GACTGCCGCA
GTACTTCGCC TTCCGTGATA AGTGGACGGG GAAGTTGCCC CTGACGGCGT
  MetLysArg LysAlaLeu PheThrCysPro PheAsnGly AspCysArg>


         310       320       330       340       350
    *     *     *     *     *     *     *     *     *     *
TCACCAAGGA CAACCGACGC CACTGCCAGG CCTGCCGGCT CAAACGCTGT
AGTGGTTCCT GTTGGCTGCG GTGACGGTCC GGACGGCCGA GTTTGCGACA
IleThrLysAsp AsnArgArg HisCysGln AlaCysArgLeu LysArgCys>


         360       370       380       390       400
    *     *     *     *     *     *     *     *     *     *
GTGGACATCG GCATGATGAA GGAGTTCATT CTGACAGATG AGGAAGTGCA
CACCTGTAGC CGTACTACTT CCTCAAGTAA GACTGTCTAC TCCTTCACGT
ValAspIle GlyMetMetLys GluPheIle LeuThrAsp GluGluValGln>
```

FIG. 6B

```
        410        420        430        440        450
         *    *     *    *     *    *     *    *     *    *
      GAGGAAGCGG GAGATGATCC TGAAGCGGAA GGAGGAGGAG GCCTTGAAGG
      CTCCTTCGCC CTCTACTAGG ACTTCGCCTT CCTCCTCCTC CGGAACTTCC
       ArgLysArg GluMetIle LeuLysArgLys GluGluGlu AlaLeuLys>


        460        470        480        490        500
         *    *     *    *     *    *     *    *     *    *
      ACAGTCTGCG GCCCAAGCTG TCTGAGGAGC AGCAGCGCAT CATTGCCATA
      TGTCAGACGC CGGGTTCGAC AGACTCCTCG TCGTCGCGTA GTAACGGTAT
      AspSerLeuArg ProLysLeu SerGluGlu GlnGlnArgIle IleAlaIle>


        510        520        530        540        550
         *    *     *    *     *    *     *    *     *    *
      CTGCTGGACG CCCACCATAA GACCTACGAC CCCACCTACT CCGACTTCTG
      GACGACCTGC GGGTGGTATT CTGGATGCTG GGGTGGATGA GGCTGAAGAC
      LeuLeuAsp AlaHisHisLys ThrTyrAsp ProThrTyr SerAspPheCys>


        560        570        580        590        600
         *    *     *    *     *    *     *    *     *    *
      CCAGTTCCGG CCTCCAGTTC GTGTGAATGA TGGTGGAGGG AGCCATCCTT
      GGTCAAGGCC GGAGGTCAAG CACACTTACT ACCACCTCCC TCGGTAGGAA
       GlnPheArg ProProVal ArgValAsnAsp GlyGlyGly SerHisPro>


        610        620        630        640        650
         *    *     *    *     *    *     *    *     *    *
      CCAGGCCCAA CTCCAGACAC ACTCCCAGCT TCTCTGGGGA CTCCTCCTCC
      GGTCCGGGTT GAGGTCTGTG TGAGGGTCGA AGAGACCCCT GAGGAGGAGG
      SerArgProAsn SerArgHis ThrProSer PheSerGlyAsp SerSerSer>


        660        670        680        690        700
         *    *     *    *     *    *     *    *     *    *
      TCCTGCTCAG ATCACTGTAT CACCTCTTCA GACATGATGG ACTCGTCCAG
      AGGACGAGTC TAGTGACATA GTGGAGAAGT CTGTACTACC TGAGCAGGTC
      SerCysSer AspHisCysIle ThrSerSer AspMetMet AspSerSerSer>


        710        720        730        740        750
         *    *     *    *     *    *     *    *     *    *
      CTTCTCCAAT CTGGATCTGA GTGAAGAAGA TTCAGATGAC CCTTCTGTGA
      GAAGAGGTTA GACCTAGACT CACTTCTTCT AAGTCTACTG GGAAGACACT
       PheSerAsn LeuAspLeu SerGluGluAsp SerAspAsp ProSerVal>


        760        770        780        790        800
         *    *     *    *     *    *     *    *     *    *
      CCCTAGAGCT GTCCCAGCTC TCCATGCTGC CCCACCTGGC TGACCTGGTC
      GGGATCTCGA CAGGGTCGAG AGGTACGACG GGGTGGACCG ACTGGACCAG
      ThrLeuGluLeu SerGlnLeu SerMetLeu ProHisLeuAla AspLeuVal>


        810        820        830        840        850
         *    *     *    *     *    *     *    *     *    *
      AGTTACAGCA TCCAAAAGGT CATTGGCTTT GCTAAGATGA TACCAGGATT
      TCAATGTCGT AGGTTTTCCA GTAACCGAAA CGATTCTACT ATGGTCCTAA
      SerTyrSer IleGlnLysVal IleGlyPhe AlaLysMet IleProGlyPhe>
```

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
Application No.: 09/509,482
Docket No.: RICE-014

FIG. 6C

```
        860        870        880        890        900
     *     *     *     *     *     *     *     *     *     *
   CAGAGACCTC ACCTCTGAGG ACCAGATCGT ACTGCTGAAG TCAAGTGCCA
   GTCTCTGGAG TGGAGACTCC TGGTCTAGCA TGACGACTTC AGTTCACGGT
    ArgAspLeu ThrSerGlu AspGlnIleVal LeuLeuLys SerSerAla>


        910        920        930        940        950
     *     *     *     *     *     *     *     *     *     *
   TTGAGGTCAT CATGTTGCGC TCCAATGAGT CCTTCACCAT GGACGACATG
   AACTCCAGTA GTACAACGCG AGGTTACTCA GGAAGTGGTA CCTGCTGTAC
   IleGluValIle MetLeuArg SerAsnGlu SerPheThrMet AspAspMet>


        960        970        980        990       1000
     *     *     *     *     *     *     *     *     *     *
   TCCTGGACCT GTGGCAACCA AGACTACAAG TACCGCGTCA GTGACGTGAC
   AGGACCTGGA CACCGTTGGT TCTGATGTTC ATGGCGCAGT CACTGCACTG
    SerTrpThr CysGlyAsnGln AspTyrLys TyrArgVal SerAspValThr>


       1010       1020       1030       1040       1050
     *     *     *     *     *     *     *     *     *     *
   CAAAGCCGGA CACAGCCTGG AGCTGATTGA GCCCCTCATC AAGTTCCAGG
   GTTTCGGCCT GTGTCGGACC TCGACTAACT CGGGGAGTAG TTCAAGGTCC
    LysAlaGly HisSerLeu GluLeuIleGlu ProLeuIle LysPheGln>


       1060       1070       1080       1090       1100
     *     *     *     *     *     *     *     *     *     *
   TGGGACTGAA GAAGCTGAAC TTGCATGAGG AGGAGCATGT CCTGCTCATG
   ACCCTGACTT CTTCGACTTG AACGTACTCC TCCTCGTACA GGACGAGTAC
   ValGlyLeuLys LysLeuAsn LeuHisGlu GluGluHisVal LeuLeuMet>


       1110       1120       1130       1140       1150
     *     *     *     *     *     *     *     *     *     *
   GCCATCTGCA TCGTCTCCCC AGATCGTCCT GGGGTGCAGG ACGCCGCGCT
   CGGTAGACGT AGCAGAGGGG TCTAGCAGGA CCCCACGTCC TGCGGCGCGA
   AlaIleCys IleValSerPro AspArgPro GlyValGln AspAlaAlaLeu>


       1160       1170       1180       1190       1200
     *     *     *     *     *     *     *     *     *     *
   GATTGAGGCC ATCCAGGACC GCCTGTCCAA CACACTGCAG ACGTACATCC
   CTAACTCCGG TAGGTCCTGG CGGACAGGTT GTGTGACGTC TGCATGTAGG
    IleGluAla IleGlnAsp ArgLeuSerAsn ThrLeuGln ThrTyrIle>


       1210       1220       1230       1240       1250
     *     *     *     *     *     *     *     *     *     *
   GCTGCCGCCA CCCGCCCCCG GGCAGCCACC TGCTCTATGC CAAGATGATC
   CGACGGCGGT GGGCGGGGGC CCGTCGGTGG ACGAGATACG GTTCTACTAG
   ArgCysArgHis ProProPro GlySerHis LeuLeuTyrAla LysMetIle>


       1260       1270       1280       1290       1300
     *     *     *     *     *     *     *     *     *     *
   CAGAAGCTAG CCGACCTGCG CAGCCTCAAT GAGGAGCACT CCAAGCAGTA
   GTCTTCGATC GGCTGGACGC GTCGGAGTTA CTCCTCGTGA GGTTCGTCAT
   GlnLysLeu AlaAspLeuArg SerLeuAsn GluGluHis SerLysGlnTyr>
```
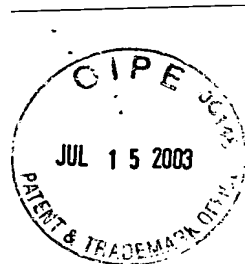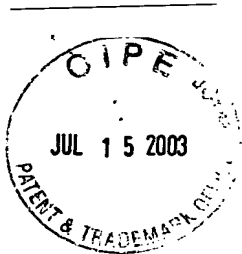
FIG. 6D

```
          1310        1320        1330        1340        1350
       *      *     *      *     *      *     *      *     *      *

     CCGCTGCCTC TCCTTCCAGC CTGAGTGCAG CATGAAGCTA ACGCCCCTTG
     GGCGACGGAG AGGAAGGTCG GACTCACGTC GTACTTCGAT TGCGGGGAAC
      ArgCysLeu  SerPheGln  ProGluCysSer MetLysLeu ThrProLeu>


          1360        1370        1380
       *      *     *      *     *      *

     TGCTCGAAGT GTTTGGCAAT GAGATCTCCT GA  (SEQ ID NO:3)
     ACGAGCTTCA CAAACCGTTA CTCTAGAGGA CT  (SEQ ID NO:18)
     ValLeuGluVal PheGlyAsn GluIleSer ***>  (SEQ ID NO:10)
```

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
Application No.: 09/509,482
Docket No.: RICE-014

FIG. 7A

Transcript 10
(Sequence Range: 1 to 1534)

```
              10        20        30        40        50
         *    *    *    *    *    *    *    *    *    *
GTTTCCTTCT TCTGTCGGGG CGCCTTGGCA TGGAGTGGAG GAATAAGAAA
CAAAGGAAGA AGACAGCCCC GCGGAACCGT ACCTCACCTC CTTATTCTTT
                                  MetGluTrpArg AsnLysLys>


              60        70        80        90        100
         *    *    *    *    *    *    *    *    *    *
AGGAGCGATT GGCTGTCGAT GGTGCTCAGA ACTGCTGGAG TGGAGGGGAT
TCCTCGCTAA CCGACAGCTA CCACGAGTCT TGACGACCTC ACCTCCCCTA
ArgSerAsp TrpLeuSerMet ValLeuArg ThrAlaGly ValGluGlyMet>


              110       120       130       140       150
         *    *    *    *    *    *    *    *    *    *
GGAGGCAATG GCGGCCAGCA CTTCCCTGCC TGACCCTGGA GACTTTGACC
CCTCCGTTAC CGCCGGTCGT GAAGGGACGG ACTGGGACCT CTGAAACTGG
 GluAlaMet AlaAlaSer ThrSerLeuPro AspProGly AspPheAsp>


              160       170       180       190       200
         *    *    *    *    *    *    *    *    *    *
GGAACGTGCC CCGGATCTGT GGGGTGTGTG GAGACCGAGC CACTGGCTTT
CCTTGCACGG GGCCTAGACA CCCCACACAC CTCTGGCTCG GTGACCGAAA
ArgAsnValPro ArgIleCys GlyValCys GlyAspArgAla ThrGlyPhe>


              210       220       230       240       250
         *    *    *    *    *    *    *    *    *    *
CACTTCAATG CTATGACCTG TGAAGGCTGC AAAGGCTTCT TCAGGTGAGC
GTGAAGTTAC GATACTGGAC ACTTCCGACG TTTCCGAAGA AGTCCACTCG
HisPheAsn AlaMetThrCys GluGlyCys LysGlyPhe PheArg***(SEQ ID NO:11)


              260       270       280       290       300
         *    *    *    *    *    *    *    *    *    *
CCCCCTCCCA GGCTCTCCCC AGTGGAAAGG GAGGGAGAAG AAGCAAGGTG
GGGGGAGGGT CCGAGAGGGG TCACCTTTCC CTCCCTCTTC TTCGTTCCAC


              310       320       330       340       350
         *    *    *    *    *    *    *    *    *    *
TTTCCATGAA GGGAGCCCTT GCATTTTTCA CATCTCCTTC CTTACAATGT
AAAGGTACTT CCCTCGGGAA CGTAAAAAGT GTAGAGGAAG GAATGTTACA


              360       370       380       390       400
         *    *    *    *    *    *    *    *    *    *
CCATGGAACA TGCGGCGCTC ACAGCCACAG GAGCAGGAGG GTCTTGGCGA
GGTACCTTGT ACGCCGCGAG TGTCGGTGTC CTCGTCCTCC CAGAACCGCT
```

Title: Isoforms of the Human Vitamin D R●●or
Inventor: Crofts et al.
Application No.: 09/509,482
Docket No.: RICE-014

FIG. 7B

```
        410        420        430        440        450
         *    *     *    *     *    *     *    *     *    *
    AGCATGAAGC GGAAGGCACT ATTCACCTGC CCCTTCAACG GGGACTGCCG
    TCGTACTTCG CCTTCCGTGA TAAGTGGACG GGGAAGTTGC CCCTGACGGC


        460        470        480        490        500
         *    *     *    *     *    *     *    *     *    *
    CATCACCAAG GACAACCGAC GCCACTGCCA GGCCTGCCGG CTCAAACGCT
    GTAGTGGTTC CTGTTGGCTG CGGTGACGGT CCGGACGGCC GAGTTTGCGA


        510        520        530        540        550
         *    *     *    *     *    *     *    *     *    *
    GTGTGGACAT CGGCATGATG AAGGAGTTCA TTCTGACAGA TGAGGAAGTG
    CACACCTGTA GCCGTACTAC TTCCTCAAGT AAGACTGTCT ACTCCTTCAC


        560        570        580        590        600
         *    *     *    *     *    *     *    *     *    *
    CAGAGGAAGC GGGAGATGAT CCTGAAGCGG AAGGAGGAGG AGGCCTTGAA
    GTCTCCTTCG CCCTCTACTA GGACTTCGCC TTCCTCCTCC TCCGGAACTT


        610        620        630        640        650
         *    *     *    *     *    *     *    *     *    *
    GGACAGTCTG CGGCCCAAGC TGTCTGAGGA GCAGCAGCGC ATCATTGCCA
    CCTGTCAGAC GCCGGGTTCG ACAGACTCCT CGTCGTCGCG TAGTAACGGT


        660        670        680        690        700
         *    *     *    *     *    *     *    *     *    *
    TACTGCTGGA CGCCCACCAT AAGACCTACG ACCCCACCTA CTCCGACTTC
    ATGACGACCT GCGGGTGGTA TTCTGGATGC TGGGGTGGAT GAGGCTGAAG


        710        720        730        740        750
         *    *     *    *     *    *     *    *     *    *
    TGCCAGTTCC GGCCTCCAGT TCGTGTGAAT GATGGTGGAG GGAGCCATCC
    ACGGTCAAGG CCGGAGGTCA AGCACACTTA CTACCACCTC CCTCGGTAGG


        760        770        780        790        800
         *    *     *    *     *    *     *    *     *    *
    TTCCAGGCCC AACTCCAGAC ACACTCCCAG CTTCTCTGGG GACTCCTCCT
    AAGGTCCGGG TTGAGGTCTG TGTGAGGGTC GAAGAGACCC CTGAGGAGGA


        810        820        830        840        850
         *    *     *    *     *    *     *    *     *    *
    CCTCCTGCTC AGATCACTGT ATCACCTCTT CAGACATGAT GGACTCGTCC
    GGAGGACGAG TCTAGTGACA TAGTGGAGAA GTCTGTACTA CCTGAGCAGG


        860        870        880        890        900
         *    *     *    *     *    *     *    *     *    *
    AGCTTCTCCA ATCTGGATCT GAGTGAAGAA GATTCAGATG ACCCTTCTGT
    TCGAAGAGGT TAGACCTAGA CTCACTTCTT CTAAGTCTAC TGGGAAGACA


        910        920        930        940        950
         *    *     *    *     *    *     *    *     *    *
    GACCCTAGAG CTGTCCCAGC TCTCCATGCT GCCCCACCTG GCTGACCTGG
    CTGGGATCTC GACAGGGTCG AGAGGTACGA CGGGGTGGAC CGACTGGACC
```

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
Application No.: 09/509,482
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FIG. 7C

```
        960         970         980         990        1000
     *      *    *      *    *      *    *      *    *      *
TCAGTTACAG CATCCAAAAG GTCATTGGCT TTGCTAAGAT GATACCAGGA
AGTCAATGTC GTAGGTTTTC CAGTAACCGA AACGATTCTA CTATGGTCCT

       1010        1020        1030        1040        1050
     *      *    *      *    *      *    *      *    *      *
TTCAGAGACC TCACCTCTGA GGACCAGATC GTACTGCTGA AGTCAAGTGC
AAGTCTCTGG AGTGGAGACT CCTGGTCTAG CATGACGACT TCAGTTCACG

       1060        1070        1080        1090        1100
     *      *    *      *    *      *    *      *    *      *
CATTGAGGTC ATCATGTTGC GCTCCAATGA GTCCTTCACC ATGGACGACA
GTAACTCCAG TAGTACAACG CGAGGTTACT CAGGAAGTGG TACCTGCTGT

       1110        1120        1130        1140        1150
     *      *    *      *    *      *    *      *    *      *
TGTCCTGGAC CTGTGGCAAC CAAGACTACA AGTACCGCGT CAGTGACGTG
ACAGGACCTG GACACCGTTG GTTCTGATGT TCATGGCGCA GTCACTGCAC

       1160        1170        1180        1190        1200
     *      *    *      *    *      *    *      *    *      *
ACCAAAGCCG GACACAGCCT GGAGCTGATT GAGCCCCTCA TCAAGTTCCA
TGGTTTCGGC CTGTGTCGGA CCTCGACTAA CTCGGGGAGT AGTTCAAGGT

       1210        1220        1230        1240        1250
     *      *    *      *    *      *    *      *    *      *
GGTGGGACTG AAGAAGCTGA ACTTGCATGA GGAGGAGCAT GTCCTGCTCA
CCACCCTGAC TTCTTCGACT TGAACGTACT CCTCCTCGTA CAGGACGAGT

       1260        1270        1280        1290        1300
     *      *    *      *    *      *    *      *    *      *
TGGCCATCTG CATCGTCTCC CCAGATCGTC CTGGGGTGCA GGACGCCGCG
ACCGGTAGAC GTAGCAGAGG GGTCTAGCAG GACCCCACGT CCTGCGGCGC

       1310        1320        1330        1340        1350
     *      *    *      *    *      *    *      *    *      *
CTGATTGAGG CCATCCAGGA CCGCCTGTCC AACACACTGC AGACGTACAT
GACTAACTCC GGTAGGTCCT GGCGGACAGG TTGTGTGACG TCTGCATGTA

       1360        1370        1380        1390        1400
     *      *    *      *    *      *    *      *    *      *
CCGCTGCCGC CACCCGCCCC CGGGCAGCCA CCTGCTCTAT GCCAAGATGA
GGCGACGGCG GTGGGCGGGG GCCCGTCGGT GGACGAGATA CGGTTCTACT

       1410        1420        1430        1440        1450
     *      *    *      *    *      *    *      *    *      *
TCCAGAAGCT AGCCGACCTG CGCAGCCTCA ATGAGGAGCA CTCCAAGCAG
AGGTCTTCGA TCGGCTGGAC GCGTCGGAGT TACTCCTCGT GAGGTTCGTC

       1460        1470        1480        1490        1500
     *      *    *      *    *      *    *      *    *      *
TACCGCTGCC TCTCCTTCCA GCCTGAGTGC AGCATGAAGC TAACGCCCCT
ATGGCGACGG AGAGGAAGGT CGGACTCACG TCGTACTTCG ATTGCGGGGA
```

Title: Isoforms of the Human Vitamin D Recep
Inventor: Crofts et al.
Application No.: 09/509,482
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FIG. 7D

```
       1510          1520          1530
     *      *      *      *      *      *
TGTGCTCGAA GTGTTTGGCA ATGAGATCTC CTGA (SEQ ID NO:4)
ACACGAGCTT CACAAACCGT TACTCTAGAG GACT (SEQ ID NO:19)
```

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
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JUL 1 5 2003

FIG. 8A

```
          10         20         30         40         50
           *          *          *          *          *
TGCGACCTTG GCGGTGAGCC TGGGGACAGG GGTGAGGCCA GAGACGGACG
ACGCTGGAAC CGCCACTCGG ACCCCTGTCC CCACTCCGGT CTCTGCCTGC


          60         70         80         90        100
           *          *          *          *          *
GACGCAGGGG CCCGGCCCAA GGCGAGGGAG AACAGCGGCA CTAAGGCAGA
CTGCGTCCCC GGGCCGGGTT CCGCTCCCTC TTGTCGCCGT GATTCCGTCT


         110        120        130        140        150
           *          *          *          *          *
AAGGAAGAGG GCGGTGTGTT CACCCGCAGC CCAATCCATC ACTCAGCAAC
TTCCTTCTCC CGCCACACAA GTGGGCGTCG GGTTAGGTAG TGAGTCGTTG


         160        170        180        190        200
           *          *          *          *          *
TCCTAGACGC TGGTAGAAAG TTCCTCCGAG GAGCCTGCCA TCCAGTCGTG
AGGATCTGCG ACCATCTTTC AAGGAGGCTC CTCGGACGGT AGGTCAGCAC


         210        220        230        240        250
           *          *          *          *          *
CGTGCAGAAG CCTTTGGGTC TGAAGTGTCT GTGAGACCTC ACAGAAGAGC
GCACGTCTTC GGAAACCCAG ACTTCACAGA CACTCTGGAG TGTCTTCTCG


         260        270        280        290        300
           *          *          *          *          *
ACCCCTGGGC TCCACTTACC TGCCCCCTGC TCCTTCAGGG ATGGAGGCAA
TGGGGACCCG AGGTGAATGG ACGGGGGACG AGGAAGTCCC TACCTCCGTT
                                             MetGluAla>


         310        320        330        340        350
           *          *          *          *          *
TGGCGGCCAG CACTTCCCTG CCTGACCCTG GAGACTTTGA CCGGAACGTG
ACCGCCGGTC GTGAAGGGAC GGACTGGGAC CTCTGAAACT GGCCTTGCAC
MetAlaAlaSer ThrSerLeu ProAspPro GlyAspPheAsp ArgAsnVal>


         360        370        380        390        400
           *          *          *          *          *
CCCCGGATCT GTGGGGTGTG TGGAGACCGA GCCACTGGCT TTCACTTCAA
GGGGCCTAGA CACCCCACAC ACCTCTGGCT CGGTGACCGA AAGTGAAGTT
ProArgIle CysGlyValCys GlyAspArg AlaThrGly PheHisPheAsn>


         410        420        430        440        450
           *          *          *          *          *
TGCTATGACC TGTGAAGGCT GCAAAGGCTT CTTCAGGCGA AGCATGAAGC
ACGATACTGG ACACTTCCGA CGTTTCCGAA GAAGTCCGCT TCGTACTTCG
 AlaMetThr CysGluGly CysLysGlyPhe PheArgArg SerMetLys>


         460        470        480        490        500
           *          *          *          *          *
GGAAGGCACT ATTCACCTGC CCCTTCAACG GGGACTGCCG CATCACCAAG
CCTTCCGTGA TAAGTGGACG GGGAAGTTGC CCCTGACGGC GTAGTGGTTC
ArgLysAlaLeu PheThrCys ProPheAsn GlyAspCysArg IleThrLys>
```
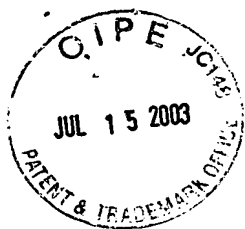
Title: Isoforms of the Human Vitamin D Recep[tor]
Inventor: Crofts et al.
Application No.: 09/509,482
Docket No.: RICE-014

FIG. 8B

```
         510        520        530        540        550
          *          *          *          *          *
GACAACCGAC GCCACTGCCA GGCCTGCCGG CTCAAACGCT GTGTGGACAT
CTGTTGGCTG CGGTGACGGT CCGGACGGCC GAGTTTGCGA CACACCTGTA
AspAsnArg  ArgHisCysGln AlaCysArg LeuLysArg  CysValAspIle>


         560        570        580        590        600
          *          *          *          *          *
CGGCATGATG AAGGAGTTCA TTCTGACAGA TGAGGAAGTG CAGAGGAAGC
GCCGTACTAC TTCCTCAAGT AAGACTGTCT ACTCCTTCAC GTCTCCTTCG
 GlyMetMet  LysGluPhe  IleLeuThrAsp GluGluVal  GlnArgLys>


         610        620        630        640        650
          *          *          *          *          *
GGGAGATGAT CCTGAAGCGG AAGGAGGAGG AGGCCTTGAA GGACAGTCTG
CCCTCTACTA GGACTTCGCC TTCCTCCTCC TCCGGAACTT CCTGTCAGAC
ArgGluMetIle LeuLysArg LysGluGlu  GluAlaLeuLys AspSerLeu>


         660        670        680        690        700
          *          *          *          *          *
CGGCCCAAGC TGTCTGAGGA GCAGCAGCGC ATCATTGCCA TACTGCTGGA
GCCGGGTTCG ACAGACTCCT CGTCGTCGCG TAGTAACGGT ATGACGACCT
ArgProLys  LeuSerGluGlu GlnGlnArg IleIleAla  IleLeuLeuAsp>


         710        720        730        740        750
          *          *          *          *          *
CGCCCACCAT AAGACCTACG ACCCCACCTA CTCCGACTTC TGCCAGTTCC
GCGGGTGGTA TTCTGGATGC TGGGGTGGAT GAGGCTGAAG ACGGTCAAGG
 AlaHisHis  LysThrTyr  AspProThrTyr SerAspPhe  CysGlnPhe>


         760        770        780        790        800
          *          *          *          *          *
GGCCTCCAGT TCGTGTGAAT GATGGTGGAG GGAGCCATCC TTCCAGGCCC
CCGGAGGTCA AGCACACTTA CTACCACCTC CCTCGGTAGG AAGGTCCGGG
ArgProProVal ArgValAsn AspGlyGly  GlySerHisPro SerArgPro>


         810        820        830        840        850
          *          *          *          *          *
AACTCCAGAC ACACTCCCAG CTTCTCTGGG GACTCCTCCT CCTCCTGCTC
TTGAGGTCTG TGTGAGGGTC GAAGAGACCC CTGAGGAGGA GGAGGACGAG
AsnSerArg  HisThrProSer PheSerGly AspSerSer  SerSerCysSer>


         860        870        880        890        900
          *          *          *          *          *
AGATCACTGT ATCACCTCTT CAGACATGAT GGACTCGTCC AGCTTCTCCA
TCTAGTGACA TAGTGGAGAA GTCTGTACTA CCTGAGCAGG TCGAAGAGGT
 AspHisCys  IleThrSer  SerAspMetMet AspSerSer  SerPheSer>


         910        920        930        940        950
          *          *          *          *          *
ATCTGGATCT GAGTGAAGAA GATTCAGATG ACCCTTCTGT GACCCTAGAG
TAGACCTAGA CTCACTTCTT CTAAGTCTAC TGGGAAGACA CTGGGATCTC
AsnLeuAspLeu SerGluGlu AspSerAsp  AspProSerVal ThrLeuGlu>


         960        970        980        990        1000
          *          *          *          *          *
CTGTCCCAGC TCTCCATGCT GCCCCACCTG GCTGACCTGG TCAGTTACAG
GACAGGGTCG AGAGGTACGA CGGGGTGGAC CGACTGGACC AGTCAATGTC
LeuSerGln  LeuSerMetLeu ProHisLeu AlaAspLeu  ValSerTyrSer>
```

Title: Isoforms of the Human Vitamin D Receptor
Inventor: Crofts et al.
Application No.: 09/509,482
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FIG. 8C

```
          1010        1020        1030        1040        1050
            *           *           *           *           *
CATCCAAAAG GTCATTGGCT TTGCTAAGAT GATACCAGGA TTCAGAGACC
GTAGGTTTTC CAGTAACCGA AACGATTCTA CTATGGTCCT AAGTCTCTGG
 IleGlnLys ValIleGly PheAlaLysMet IleProGly PheArgAsp>


          1060        1070        1080        1090        1100
            *           *           *           *           *
TCACCTCTGA GGACCAGATC GTACTGCTGA AGTCAAGTGC CATTGAGGTC
AGTGGAGACT CCTGGTCTAG CATGACGACT TCAGTTCACG GTAACTCCAG
LeuThrSerGlu AspGlnIle ValLeuLeu LysSerSerAla IleGluVal>


          1110        1120        1130        1140        1150
            *           *           *           *           *
ATCATGTTGC GCTCCAATGA GTCCTTCACC ATGGACGACA TGTCCTGGAC
TAGTACAACG CGAGGTTACT CAGGAAGTGG TACCTGCTGT ACAGGACCTG
 IleMetLeu ArgSerAsnGlu SerPheThr MetAspAsp MetSerTrpThr>


          1160        1170        1180        1190        1200
            *           *           *           *           *
CTGTGGCAAC CAAGACTACA AGTACCGCGT CAGTGACGTG ACCAAAGCCG
GACACCGTTG GTTCTGATGT TCATGGCGCA GTCACTGCAC TGGTTTCGGC
 CysGlyAsn GlnAspTyr LysTyrArgVal SerAspVal ThrLysAla>


          1210        1220        1230        1240        1250
            *           *           *           *           *
GACACAGCCT GGAGCTGATT GAGCCCCTCA TCAAGTTCCA GGTGGGACTG
CTGTGTCGGA CCTCGACTAA CTCGGGGAGT AGTTCAAGGT CCACCCTGAC
GlyHisSerLeu GluLeuIle GluProLeu IleLysPheGln ValGlyLeu>


          1260        1270        1280        1290        1300
            *           *           *           *           *
AAGAAGCTGA ACTTGCATGA GGAGGAGCAT GTCCTGCTCA TGGCCATCTG
TTCTTCGACT TGAACGTACT CCTCCTCGTA CAGGACGAGT ACCGGTAGAC
LysLysLeu AsnLeuHisGlu GluGluHis ValLeuLeu MetAlaIleCys>


          1310        1320        1330        1340        1350
            *           *           *           *           *
CATCGTCTCC CCAGATCGTC CTGGGGTGCA GGACGCCGCG CTGATTGAGG
GTAGCAGAGG GGTCTAGCAG GACCCCACGT CCTGCGGCGC GACTAACTCC
 IleValSer ProAspArg ProGlyValGln AspAlaAla LeuIleGlu>


          1360        1370        1380        1390        1400
            *           *           *           *           *
CCATCCAGGA CCGCCTGTCC AACACACTGC AGACGTACAT CCGCTGCCGC
GGTAGGTCCT GGCGGACAGG TTGTGTGACG TCTGCATGTA GGCGACGGCG
AlaIleGlnAsp ArgLeuSer AsnThrLeu GlnThrTyrIle ArgCysArg>


          1410        1420        1430        1440        1450
            *           *           *           *           *
CACCCGCCCC CGGGCAGCCA CCTGCTCTAT GCCAAGATGA TCCAGAAGCT
GTGGGCGGGG GCCCGTCGGT GGACGAGATA CGGTTCTACT AGGTCTTCGA
HisProPro ProGlySerHis LeuLeuTyr AlaLysMet IleGlnLysLeu>


          1460        1470        1480        1490        1500
            *           *           *           *           *
AGCCGACCTG CGCAGCCTCA ATGAGGAGCA CTCCAAGCAG TACCGCTGCC
TCGGCTGGAC GCGTCGGAGT TACTCCTCGT GAGGTTCGTC ATGGCGACGG
 AlaAspLeu ArgSerLeu AsnGluGluHis SerLysGln TyrArgCys>
```

FIG. 8D

```
       1510           1520           1530           1540           1550
        *              *              *              *              *
   TCTCCTTCCA GCCTGAGTGC AGCATGAAGC TAACGCCCCT TGTGCTCGAA
   AGAGGAAGGT CGGACTCACG TCGTACTTCG ATTGCGGGGA ACACGAGCTT
   LeuSerPheGln ProGluCys SerMetLys LeuThrProLeu ValLeuGlu>

       1560           1570
        *              *
   GTGTTTGGCA ATGAGATCTC CTGA (SEQ ID NO:7)
   CACAAACCGT TACTCTAGAG GACT (SEQ ID NO:20)
   ValPheGly AsnGluIleSer ***> (SEQ ID NO:12)
```